Title: Experimental Validation and Multi-omics Analysis Identified ARPC1AAs A Novel Oncogene And Potential Therapeutic Target In Glioblastoma

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Characteristics	Number of cases		
Age (years)			
>60	3		
<60	1		
Gender			
Female	1		
Male	3		
Tumor size (Maximum diameter)			
\geq 5 cm	4		
IDH status			
Wild-type	4		

Table S1 The clinical parameters of the patients

Note: IDH, isocitrate dehydrogenase

ARPC1A-1	forward:	5'-GAUUUCAUUCCAUUCUUGATT-3',	reverse:	5'-	
	UCAAGAAUGGAAUGAAAUCTT-3'				
ARPC1A-2	forward:	5'-GCUCCUAAGUGUGUCAUUUTT-3',	reverse:	5'-	
	AAAUGACACUUAGGAGCTT-3'				
ARPC1A-3	forward:	5'-UGACAAUUUGGGAUUUCAATT-3',	reverse:	5'-	
	UUGAAAUCCCAAAUUGUCATT-3'				

 Table S3 Antibody Information

Antibody name	Catalogue Number	Source of purchase	
ARPC1A	#DF6215	Affinity Biosciences	
E-cadherin	EM0502	Huabio	
N-cadherin	EM1607-37	Huabio	
Vimentin	MA5-11883	Thermo Fisher Scientific	
GAPDH	#AF7021	Affinity Biosciences	
MGMT	#AF5295	Affinity Biosciences	

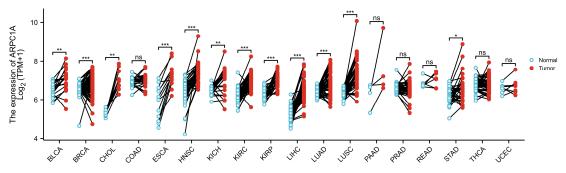


Figure S1 Differential expression of ARPC1A in paired tumor samples

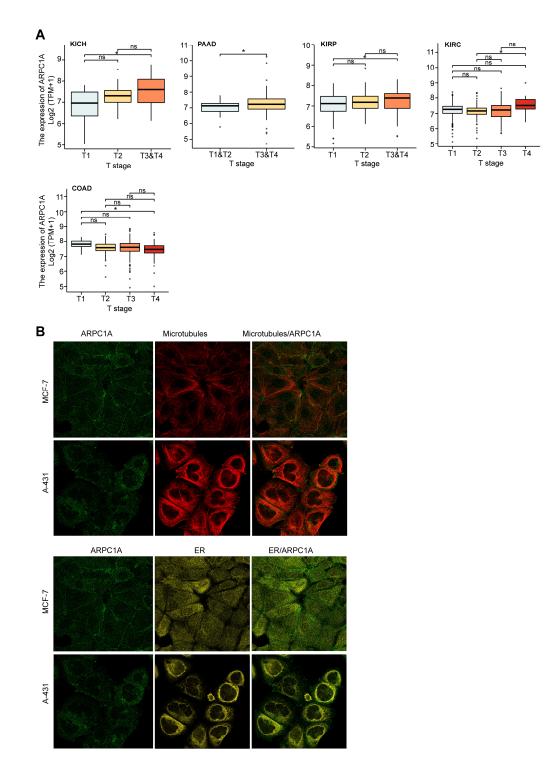


Figure S2: Expression pattern of ARPC1A in pan-cancer. **A** Correlation between ARPC1A expression and tumor stage. **B** Immunofluorescence images of ARPC1A in MCF-7 and A-431 cell lines were obtained from the HPA database

A CancerCode	pvalue	TCGA-DFI	Hazard Ratio(95%CI)	B CancerCode	pvalue	TCGA-PFI	Hazard Ratio(95%CI
ACC	7.6e-3	. F - • - 4	4.22(1.44,12.35)	LGG	6.6e-6	F • 1	2.51(1.68,3.74)
LIHC	0.02	j e i	1.39(1.05, 1.85)	ACC	1.9e-3	1- 🔷 -1	2.46(1.39,4.35)
KIRC	0.03	i •i	4.45(1.21,16.39)	KIRC	2.5e-3		1.93(1.26,2.95)
PAAD	0.06	1 • 1	1.75(0.98.3.14)	STAD	0.01	ا 🗢 از	1.38(1.08,1.77)
ov	0.11	PO I	1.30(0.94, 1.80)	MESO	0.01	11- 🗢 -1	2.04(1.17,3.55)
DLBC	0.13	1-6	-1 5.57(0.50,62.68)	UVM	0.03	'H	3.41(1.13,10.25)
BLCA	0.15	F 🗕 4	1.68(0.82.3.44)	GBM	0.08	F 👁 4	1.45(0.96,2.20)
LGG	0.17	F - • - 4	2.32(0.70.7.65)	PAAD	0.08	i 🗢 I	1.33(0.97,1.82)
SARC	0.20	1.01	1.34(0.86.2.09)	KIRP	0.09	i- 🗢 -1	1.61(0.93,2.81)
STAD	0.22	1	1.32(0.85.2.05)	PRAD	0.10	I ₁ - 🔷 -1	1.57(0.92,2.70)
MESO	0.22	F 4 - • 4	2.71(0.54,13.66)	LIHC	0.13	100 I	1.20(0.95,1.52)
KIRP	0.36	I- ¹ • -1	1.47(0.64.3.33)	HNSC	0.21	P• 1	1.16(0.92,1.48)
ESCA	0.61	1 🖝 1	1.17(0.64.2.15)	BLCA	0.36	1 🤜 1	1.14(0.86,1.53)
LUAD	0.72	1.	1.07(0.75,1.53)	BRCA	0.43	1 🗢 1	1.15(0.82, 1.62)
COAD	0.73	F - • - 4	1.21(0.40.3.64)	ucs	0.49	1 - 🔶 - 1	1.27(0.64,2.54)
BRCA	0.76	1.	1.07(0.69, 1.66)	CHOL	0.70	F - •	1.16(0.54,2.51)
CHOL	0.80	F - • - 4	1.17(0.34.4.02)	LUAD	0.71	1 9 1	1.04(0.84,1.30)
PRAD	0.85	1 - 👆 - 1	1.10(0.41,2.95)	CESC	0.75	F 😰 -1	1.08(0.66,1.78)
UCEC	0.97	F 🔶 H	1.01(0.51.2.03)	COAD	0.76	F 🐠 🕂	1.07(0.69,1.66)
READ	0.05		0.07(4.4e-3,1.18)	SARC	0.81	1 🗄 1	1.04(0.77,1.41)
PCPG	0.16	F • •	0.22(0.03.1.87)	ov	0.97	I. III	1.00(0.81,1.24)
KICH	0.21	1	0.21(0.02.2.66)	ESCA	0.99	1 🛉 1	1.00(0.76,1.32)
TGCT	0.25	 F • H	0.66(0.33.1.34)	LUSC	0.99	1 🛉 I	1.00(0.77,1.30)
THCA	0.40	F - • • • •	0.62(0.20.1.87)	THCA	1.00	I 🌪I	1.00(0.45,2.26)
UCS	0.50	1	0.63(0.17.2.38)	READ	0.03	F	0.29(0.09,0.87)
HNSC	0.56	F 🖬 4	0.82(0.42,1.60)	TGCT	0.16	1- 🔷 -1	0.65(0.35,1.20)
LUSC	0.82	1.	0.96(0.65,1.41)	PCPG	0.19	F	0.48(0.16,1.44)
CESC	0.82	I- • -I	0.93(0.42,2.09)	THYM	0.31	-	0.56(0.18,1.72)
0200		-6 -5 -4 -3 -2 -1 0 1 2 3 4 5		SKCM	0.67	1¢1	0.96(0.79,1.16)
	-7	-6 -6 -4 -3 -2 -1 0 1 2 3 4 t log2(Hazard Ratio(95%CI))	2	DLBC	0.74		0.78(0.18,3.38)
		• .		UCEC	0.99	E 🐢 H	1.00(0.63,1.59)

Figure S3 Prognostic value of ARPC1A in various tumors. **A-B** The forest plot showed the correlation of ARPC1A with DFI and PFI in tumors using the univariate Cox regression

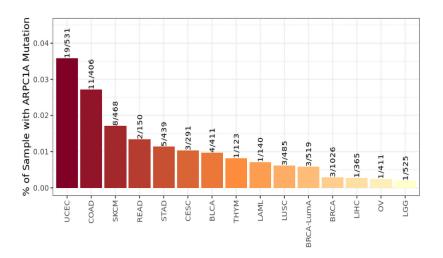


Figure S4 Mutation frequency of ARPC1A in multiple cancers